



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

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If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

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*** *** ***



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ACCIDENT RESEARCH SECTION

Division of Arvin/Calspan
Buffalo, New York 14225

CALSPAN LIMITED ON-SITE AIR BAG DEPLOYMENT INVESTIGATION

CALSPAN CASE NO. 91-1

FLEET - 1988 ACURA LEGEND LS

LOCATION - [REDACTED], OH

ACCIDENT DATE - [REDACTED], 1991

Contract No. DTNH22-87-C-27169

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590

CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION

CALSPAN CASE NO. 91-1

FLEET - 1988 ACURA LEGEND LS
LOCATION - [REDACTED] OHPRELIMINARY SUMMARY

This crash occurred at a four-leg intersection in the [REDACTED] OH area in the latter part of [REDACTED] 1991. The case vehicle was a 1988 Acura Legend that was equipped with a driver air bag system. The inflator assembly was manufactured by [REDACTED] Defense Systems in [REDACTED] 1987. The air bag was manufactured by [REDACTED] on [REDACTED].

At the time of the accident, the Acura was driven by an adult female who was 62" tall and weighed approximately 125 lbs. She was wearing the active 3-point lap and shoulder belt system. Belt usage was supported by a black loading transfer from the B-pillar mounted D-ring on the shoulder belt webbing. The diagonal transfer was located 55" upstream from the latchplate or 10.25" from the fully extended end of the shoulder belt webbing. The location of the D-ring transfer indicates that the driver was either wearing the belt system loose on her person, or was seated with the seat adjusted to the most forward position.

The full frontal area of the Acura impacted the right side area of another vehicle as it passed through the four leg intersection. Although the Acura was repaired at the time of [REDACTED] on-site inspection, the auto body repairman stated that the frontal structure sustained minimal crush (approximately 4-6") and that it was displaced laterally to the vehicle's right, indicating an 11 o'clock direction of force. The damaged parts were available for inspection. Direct contact damage was 57.25" that extended across the entire frontal plane. The contact damage also extended onto the hood face of the Acura. The hood, bumper, grille, both front fenders, and the radiator support panel were replaced. The preliminary repair estimate totalled \$10,260.

As a result of the crash, the Acura's driver air bag system deployed. The driver's face contacted the nontethered air bag. Facial contact evidence on the bag indicated that the steering wheel was probably rotated 180° when she contacted the bag. A lipstick transfer was noted 1-3" left of center and 3.75-4.5" above the horizontal center line. A faint makeup transfer (probable right eye makeup) was also noted 4.75-5.5" above the horizontal center line and .5" to the right to 1" left of the vertical center line. The suspected eye makeup transfer was located on a fold crease that extended horizontally across the bag. The face of the air bag contained 4 horizontal fold lines that were nearly evenly spaced on 4.5" centers. The driver's contact with the air bag resulted in a corneal abrasion or laceration (AIS-1). She was not wearing eyeglasses or contact lenses.

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. 91-1		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Calspan Limited On-Site Air Bag Deployment Investigation Fleet - 1988 Acura Legend LS Location - [REDACTED], OH				5. Report Date [REDACTED] 1991	
				6. Performing Organization Code	
7. Author(s) Accident Research Section				8. Performing Organization Report No.	
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				14. Sponsoring Agency Code	
15. Supplementary Notes Limited on-site investigation of an air bag deployment crash that involved a 1988 Acura Legend. The belted female driver sustained an eye injury from her contact with the air bag.					
16. Abstract This limited on-site investigation focuses on a 1988 Acura Legend that was involved in a front-to-side impact sequence with a 1985 Cadillac. The Acura was under repair at the time of Calspan's inspection of the vehicle; however, the air bag system was intact and the damaged components were available. The Acura sustained approximately 4-6" of frontal crush which resulted in a sufficient longitudinal deceleration to deploy the driver air bag system. The driver of the Acura was a 50-year-old female, 61", 129 lbs. She was wearing the active 3-point lap and shoulder belt system. Her face contacted the deployed air bag depositing lipstick and makeup transfers near the center area of the nontethered bag. As a result of her facial contact, the driver sustained a left corneal abrasion with peripheral retina hemorrhage, edema of the conjunctiva, hemorrhage of the eyelid, and hemorrhage of the anterior chamber of the eye (hyphema). She also sustained superficial abrasions of the left neck and shoulder from loading the active belt system.					
17. Key Words Frontal impact Sufficient longitudinal deceleration Air bag deployment Corneal abrasion				18. Distribution Statement General Public	
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TABLE OF CONTENTS

	<u>Page No.</u>
Summary	1
Accident Data	3
Ambience	3
Highway	3
Vehicles	4
Vehicle Damage	5
Collision Sequence	6
Human Factors/Occupant Data	7
Air Bag Driver Injuries	7
Air Bag Driver Kinematics	8
Air Bag System	8
Selected Prints	10
Slide Index	18
Appendix A: Police Accident Report	19
Appendix B: Air Bag Contact Schematic	25
Appendix C: Auto Body Shop Repair Estimate	27

CALSPAN LIMITED ON-SITE AIR BAG DEPLOYMENT INVESTIGATION

CALSPAN CASE NO. 91-1

FLEET - 1988 ACURA LEGEND LS
LOCATION - [REDACTED] OHIO

SUMMARY

This crash occurred at a four-leg intersection in [REDACTED], OH, on [REDACTED] 1991 at [REDACTED] hours. The case vehicle was a 1988 Acura Legend LS, 4 dr. sedan, that was equipped with a supplemental driver air bag system. The Acura was driven by a 50-year-old female, 61" tall with a weight of 129 lbs. She was wearing the active 3-point lap and shoulder belt system.

The driver of the Acura approached the four-leg intersection at an estimated speed of 35-40 mph; however, she decelerated to approximately 20-25 mph as she entered the intersection on a green signal phase. A 1985 Cadillac entered the intersection from the Acura's right against a red signal phase. The frontal area of the air bag equipped Acura impacted the left side area of the Cadillac. Resultant directions of force were probably within the 1 o'clock sector for the Acura and 10 o'clock for the Cadillac. The Acura sustained a sufficient longitudinal deceleration to deploy the vehicle's driver air bag system. Although the Acura was under repair at the time of [REDACTED] on-site investigation, the auto body technician estimated frontal crush at 4-6" at the right front corner. He further stated that the frontal structure was displaced laterally to the left 3-4".

The front to side impact configuration rotated the Acura in a counter-clockwise direction, possibly resulting in a minor sideslap involving the right front fender and door of the Acura and the left rear side area of the Cadillac. There was minimal contact damage on the right front fender and right front door of the Acura.

The driver of the Acura was in a normal seated position at impact with both hands on the steering wheel. The driver's seat was adjusted to a forward position. As the air bag deployed, the steering wheel probably rotated 180° counterclockwise due to a driver pre-crash steering input and lateral displacement of the vehicle at impact. The driver initiated a forward trajectory and loaded the active 3-point belt system. Her loading force on the shoulder belt webbing produced a black plastic transfer on the webbing from the B-pillar mounted D-ring. She sustained a superficial abrasion of the left neck and left shoulder from her loading of the active shoulder belt webbing. The driver's face contacted the deployed air bag depositing lipstick and makeup transfers on the air bag. The lipstick transfer was located 0-.75" below the horizontal centerline and 1-3" left of the vertical centerline. The makeup transfer (probably eye makeup) was located 4.75 - 5.5" above the centerline and extended from .5" right to 1" left of the vertical centerline. (All measurements were taken with the wheel rotated 180° from a straight ahead

position.) Both transfers were located on horizontal fold creases of the air bag. The driver sustained a left corneal abrasion (AIS-1) with peripheral retina hemorrhage, edema of the conjuction, hemorrhage of the eyelid, and of the anterior chamber of the eye (hyphema). She was not wearing eyeglasses or contact lenses.

Following the crash, the driver was transported to her husband's office (ophthalmologist) where he treated her injury with eyedrops. She experienced a brief loss of vision (2 days) and has since recovered fully from the injury.

CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION

CALSPAN CASE NO. 91-1

FLEET - 1988 ACURA LEGEND LS
LOCATION - [REDACTED] OHIO

ACCIDENT DATA

Location: 4-leg intersection
City/Township: [REDACTED] OH
Area/Type: Urban/Commercial
Accident Date/Time: [REDACTED], 1991 [REDACTED] hours
Investigating Police Agency: [REDACTED] Patrol
Accident Type: Car/Car, front to side impact configuration
Air Bag Vehicle Driver Injury Severity: Minor (AIS-1)

AMBIENCE

Viewing Conditions: Daylight
Weather: Clear
Precipitation: None
Road Surface: Dry

HIGHWAY

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Type:	[REDACTED] road	[REDACTED] route
Number of Lanes:	3	3
Surface:	Asphalt	Asphalt
Traffic Density:	Moderate	Moderate
Signals:	On-colors, overhead signal system	
Signs:	None pertinent	

HIGHWAY (CONT'D.)

Markings:

Speed Limit:

Air Bag Vehicle

Yellow full barrier center
lines, solid white edgelines
35 mph

Vehicle #2

35 mph

VEHICLES

Description:

1988 Acura Legend LS,
4 dr. sedan

1985 Cadillac Fleetwood,
2 dr. sedan

V.I.N.:

JH4KA4667J [REDACTED]

Color:

White

Black

Odometer:

25,190.8 miles

Engine:

V-6, 2.7 liter

Transmission:

4-speed automatic
overdrive, console
mounted transmission
selector lever

Steering:

Power-assisted rack
and pinion

Brakes:

Power-assisted 4-wheel
disc with anti-lock

Padding:

Upper, mid, and lower
instrument panel, knee
bolster, sunvisors, soft
edged steering wheel rim
and module cover, side door
panels, door armrests,
center console, adjustable
head restraints

Active Restraints:

3-point lap and shoulder
belts in the four outboard
seated positions, center
rear lap belt. The front
seat active belt systems
were equipped with adjustable
B-pillar mounted D-rings.

Passive Restraints:

Supplemental driver air bag
system that deployed as a
result of the vehicle's
frontal impact sequence with
the left side area of
vehicle #2

VEHICLES (CONT'D.)

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Defects:	None	None
Tow Status:	Towed due to damage	Towed due to damage

VEHICLE DAMAGE

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Exterior:	<p>The frontal area of the Acura Legend sustained moderate damage from its impact with the left side of vehicle #2. At the time of Calspan's on-site investigation, the vehicle was under repair with all damaged components replaced. The damaged components (bumper, fenders, and hood) were available for inspection.</p> <p>Maximum crush was estimated by the [REDACTED] technician as 4-6", located at the right corner of the front bumper. He also reported that the front frame rails were displaced laterally to the left approximately 3-4", indicating a direction of force within the 1 o'clock sector.</p> <p>Direct contact damage began at the right corner of the bumper facia and extended 57.25" to the left. Contact damage also extended onto the right front fender and door that probably occurred from a minor secondary sideslap.</p>	<p>Vehicle #2 reportedly sustained moderate damage to the left passenger compartment area.</p>
CDC:	Primary - 01-FDEW-1 Secondary - 03-LYEW-1	10-LPEW-3 (estimated) 09-LBEW-1
Repair Cost:	\$10,260.88 inclusive of air bag module and crash sensor replacement	
Interior (Air Bag Vehicle):	<p>The interior of the Acura Legend did not sustain residual damage from exterior deformation or occupant contact. The air bag module cover opened in an H-configuration at the designated tear points as the bag deployed. At the time of deployment, the steering wheel was probably rotated 180° counterclockwise due to a driver steering input and impact-induced lateral displacement of the vehicle. The driver's face loaded the</p>	

VEHICLE DAMAGE (CONT'D.)

Interior (Air Bag Vehicle) (Cont'd.): deployed air bag depositing lipstick and suspected makeup transfers on the face of the bag. The lipstick transfer was located 0-.75" below the horizontal centerline and 1-3" left of the vertical centerline. The makeup transfer (possible eye makeup) extended 4.75 - 5.5" above and .5" right to 1" left of the reference centerlines. All measurements were taken with the steering wheel rotated 180° from a straight ahead position.

The driver was wearing the active 3-point lap and shoulder belt system. At impact, the inertia reel locked as the driver loaded the belt webbing. His loading force on the shoulder belt webbing pulled the webbing through the B-pillar mounted D-ring which produced a diagonally orientated black plastic transfer on the webbing. The transfer was located 55" from the latchplate retainer button that was affixed to the webbing or, with the belt fully extended from the retractor, the transfer was located 10.25" below the D-ring. At impact, the driver was seated in a forward position, close to the steering wheel, with the belt nearly fully extended from the retractor.

The continuous loop belt webbing was not replaced by the body shop.

COLLISION SEQUENCE

Pre-Crash: The Acura was traveling in a southerly direction at a driver estimated speed of 35-40 mph as she approached a four-leg intersection. She decelerated to approximately 20-25 mph as she entered the intersection on a green signal phase.

A 1985 Cadillac entered the intersection from the Acura's right against a red signal phase. The driver of the Acura probably steered in a counterclockwise direction and braked in an attempt to avoid impact. It was unknown if the driver of the Cadillac attempted avoidance action.

Crash: The full frontal area of the Acura impacted the left passenger compartment area of the Cadillac. Resultant directions of force were probably within the 1 o'clock sector for the Acura and 10 o'clock for vehicle #2. The impact resulted in a sufficient longitudinal deceleration to deploy the Acura's driver air bag system. The driver contacted the deployed air bag and sustained injury to the left eye.

The Acura was rotated in a counterclockwise direction as it momentarily remained engaged with the Cadillac. Direct contact damage extended onto the right front fender and door, indicating a probable secondary sideslap with the left rear of vehicle #2.

COLLISION SEQUENCE (CONT'D.)

Post-Crash: The vehicles separated and came to rest within the intersection. The driver of the Acura refused medical treatment and requested transportation to her husband's office. He, an ophthalmologist, examined her left eye and treated the injury with eyedrops.

HUMAN FACTORS/OCCUPANT DATA

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Driver:	50 year-old female	73 year old male
Height:	61"	
Weight:	129 lbs.	
Active Restraint System Usage:	3-point lap and shoulder belt system	
Usage Source:	Vehicle inspection, driver interview	
Eyeglasses:	None	
Vehicle Familiarity:	2 years	
Route Familiarity:	Daily	
Trip Plan:	Business trip	
Manner of Leaving Scene:		
Type of Medical Treatment:	Private ophthalmologist (driver's husband)	Transported to a [REDACTED] hospital

AIR BAG DRIVER INJURIES

<u>Injury</u>	<u>Severity</u>	<u>Source</u>
Left corneal abrasion with peripheral retina hemorrhage, edema of the conjunctiva, hemorrhage of the lid, and hemorrhage of the anterior chamber of the eye (hyphema)	Minor (FLA0-1)	Air bag
Superficial abrasion of the left neck (no broken skin)	Minor (NLAI-1)	Shoulder belt webbing
Superficial abrasion of the anterior left shoulder	Minor (SLAI-1)	Shoulder belt webbing

AIR BAG DRIVER KINEMATICS

The driver of the Acura Legend was in a normal seated position with both hands on the steering wheel. Her seat was adjusted to a forward position with the seatback set nearly vertical. The driver was wearing the active 3-point lap and shoulder belt system. Belt usage was evidenced by the presence of routine wear marks on the latchplate, interview data, injury data, and a black transfer on the belt webbing from loading against the left B-pillar mounted D-ring.

At impact, the supplemental driver air bag system deployed as the driver initiated a forward trajectory in response to the frontal impact. The steering wheel was probably rotated 180° counterclockwise due to a probable pre-crash driver steering input and the lateral displacement of the vehicle from the 1 o'clock impact force. The driver's face contacted the nontethered air bag, depositing lipstick and makeup transfers on the face of the air bag. The lipstick transfer was located 0 - .75" below the horizontal centerline and 1 - 3" left of the vertical centerline. (The transfers were measured with the steering wheel rotated 180° from a straight-ahead position.) The makeup transfer (possible eye makeup) extended 4.75 - 5.5" above the centerline and from .5" right to 1" left of the vertical centerline. Both transfers were located on horizontal fold creases.

As a result of the driver's facial contact with the deployed air bag, she sustained a left corneal abrasion with peripheral retina hemorrhage, edema of the conjunctiva, hemorrhage of the eyelid, and hemorrhage of the anterior chamber of the eye (hyphema). She was not wearing eyeglasses or contact lenses.

The driver loaded the active 3-point belt system as she initiated her forward trajectory. Her loading force on the shoulder belt webbing produced a black plastic transfer from the B-pillar mounted D-ring. The driver sustained superficial abrasions of the anterior left neck and shoulder from the shoulder belt webbing. The active and passive restraint systems were effective in preventing the driver from contact with additional interior components and potential further injury.

The driver rebounded into the left front seatback where she came to rest.

AIR BAG SYSTEM

The 1988 Acura Legend was equipped with a supplemental driver air bag system that deployed at impact. The air bag was of typical construction and was vented by two ports that measured 1.5" in diameter. The venting ports were located on the back side of the bag (side away from driver) at the 11 and 1 o'clock positions. There was no residue on the inside surface of the ports or on the steering assembly adjacent to the venting ports. The air bag measured approximately 24" in diameter (deflated) and had no internal tether straps. The deployed air bag had four (4) horizontal fold creases that were spaced approximately 4.5" apart. There were also seven (7) less visible vertical fold lines spaced on 3" centers. Lipstick and probable eye makeup transfers were visible on the face of the bag. Both transfers were located at the horizontal fold creases.

AIR BAG SYSTEM (CONT'D.)

The nontethered air bag was manufactured by [REDACTED] with the following identification stamped onto the bag:

SRS [REDACTED]

MODEL NO. [REDACTED]

MFG. DATE [REDACTED]

The inflator assembly was manufactured by [REDACTED] and contained the following labeling:

[REDACTED]
[REDACTED]
DATE OF MFG. [REDACTED]
[REDACTED]
[REDACTED]

PATENT NO. [REDACTED]



Frontal Damage To The Acura Legend



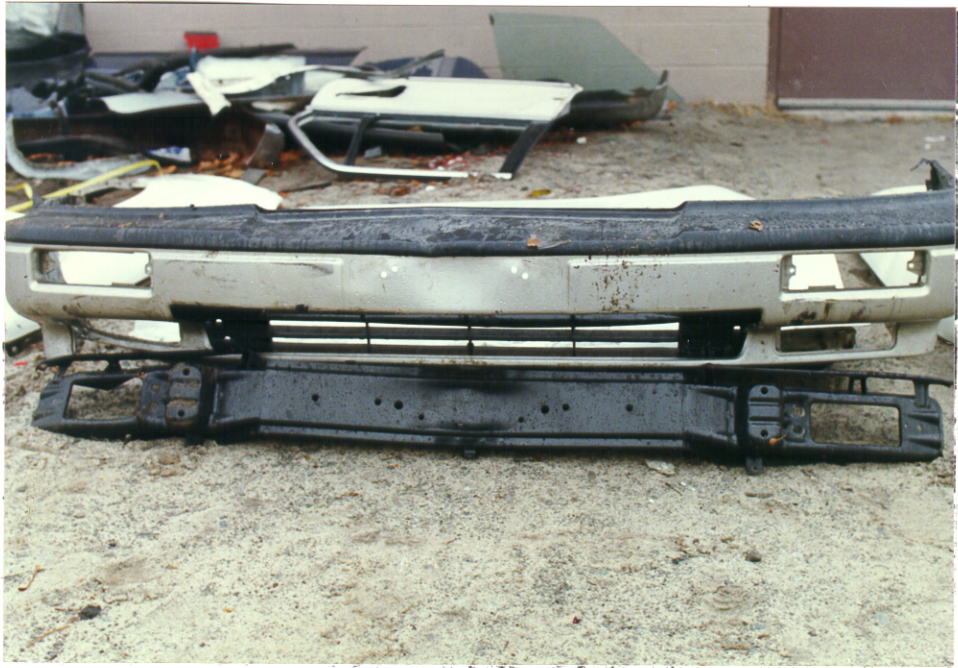
Left Front Three-Quarter View Of The Repaired Acura Legend



Right Front Three-Quarter View Of The Acura Legend



Damaged And Replaced Frontal Components



Damage To The Bumper Facia And Reinforcement Bar



Hood Damage



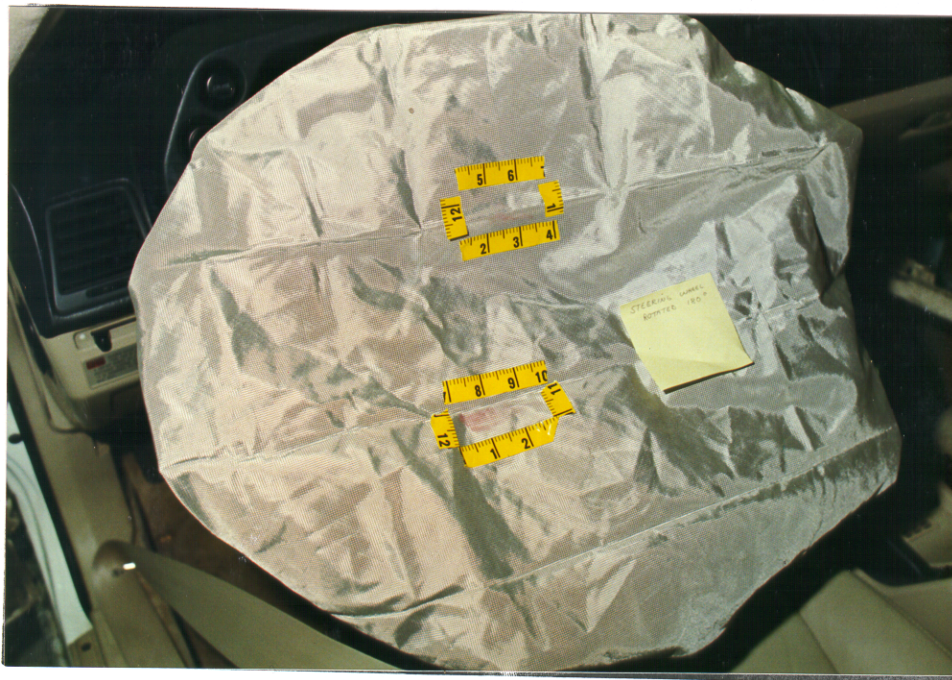
Damaged Front Fenders



Overall Interior View Of The Deployed Air Bag
And Active 3-Point Belt, Webbing

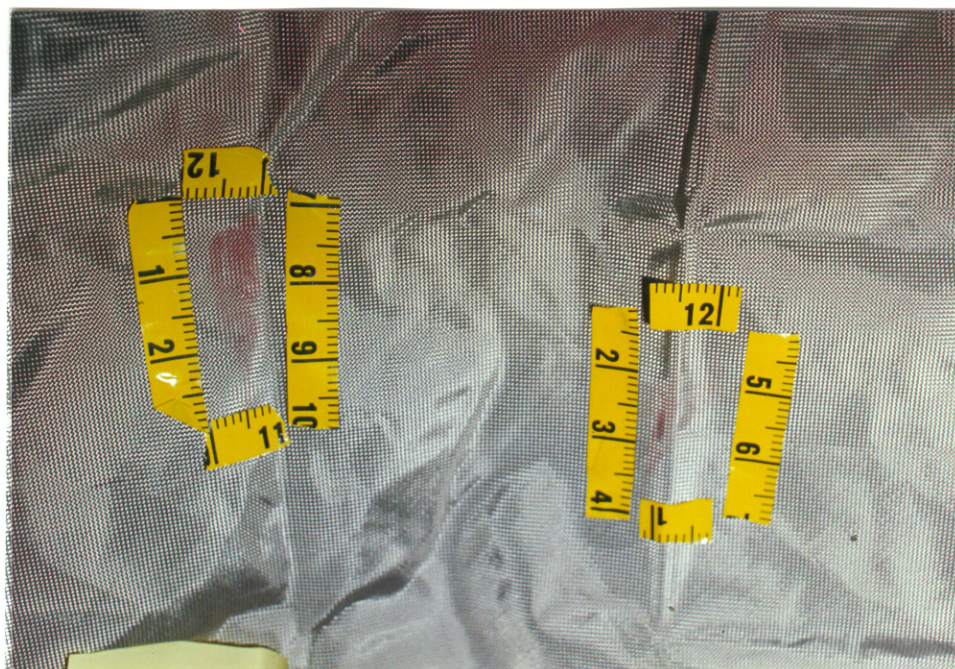


Air Bag Identification Numbers

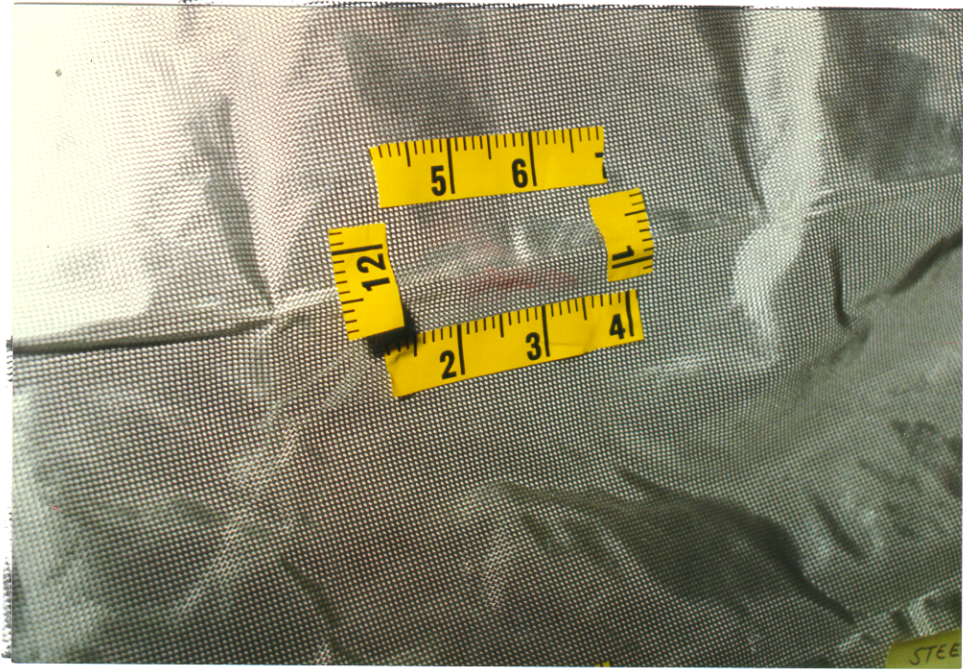


Driver Facial Contact (Lipstick And Makeup Transfers) To The Deployed Air Bag

12.



Closeup Views Of The Facial Contacts



Eye Makeup Transfer On A Fold Crease



Closeup View Of The Lipstick Transfer

11.



D-Ring Transfer On The Shoulder Belt Webbing From Driver Loading

16.



Driver Knee Bolster, No Evidence Of Driver Contact

SLIDE INDEX

<u>Slide No(s).</u>	<u>Description</u>
1	Driver injury mannequin (REMOVED FOR SANITIZATION)
2	Frontal view of the repaired Acura Legend
3,4	Left front three-quarter views
5	Left side view
6	Right front three-quarter view
7	Perpendicular view of the right frontal plane
8	Overall view of the interior, deployed driver air bag, and active 3-point lap and shoulder belt webbing
9	Length of belt webbing that was extended at time of crash
10,11	Driver facial contact to air bag, lipstick and makeup transfers
12,13	Closeup views of the transfers
14	Closeup view of the lipstick transfer
15	Closeup view of the eye makeup transfer on fold crease
16,17	D-ring transfer on belt webbing from driver loading









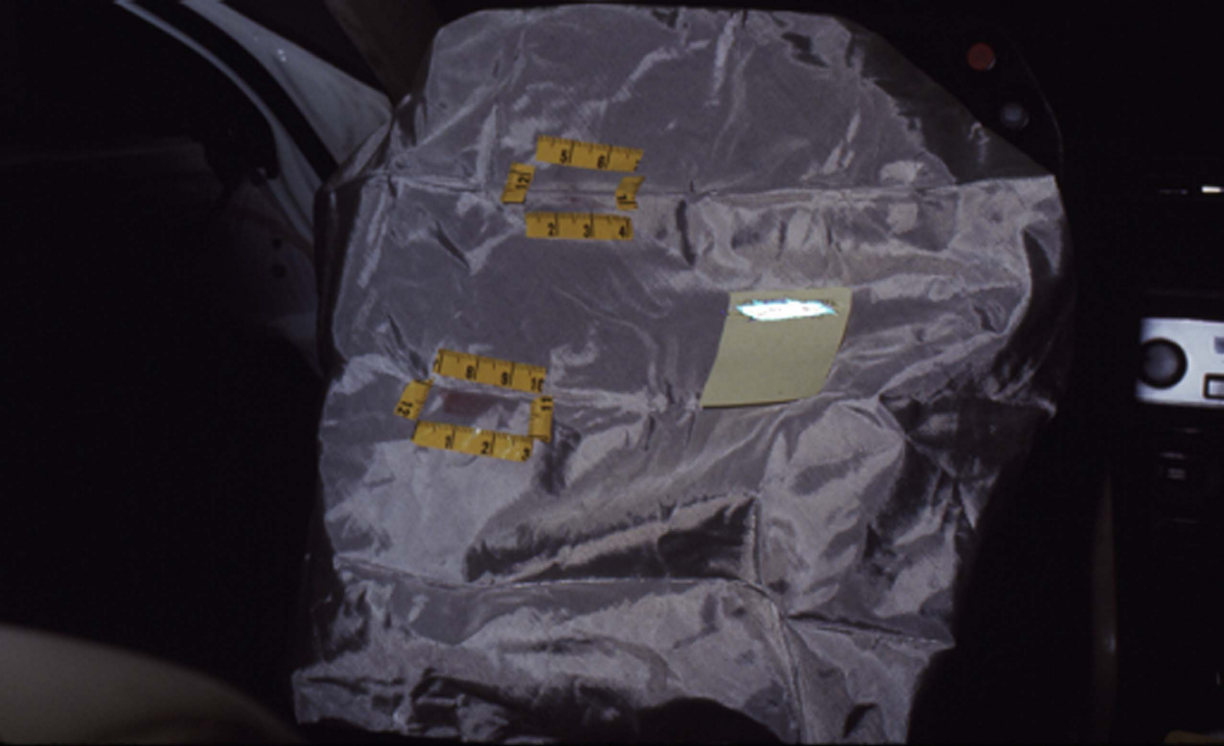


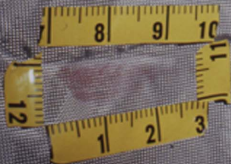
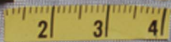


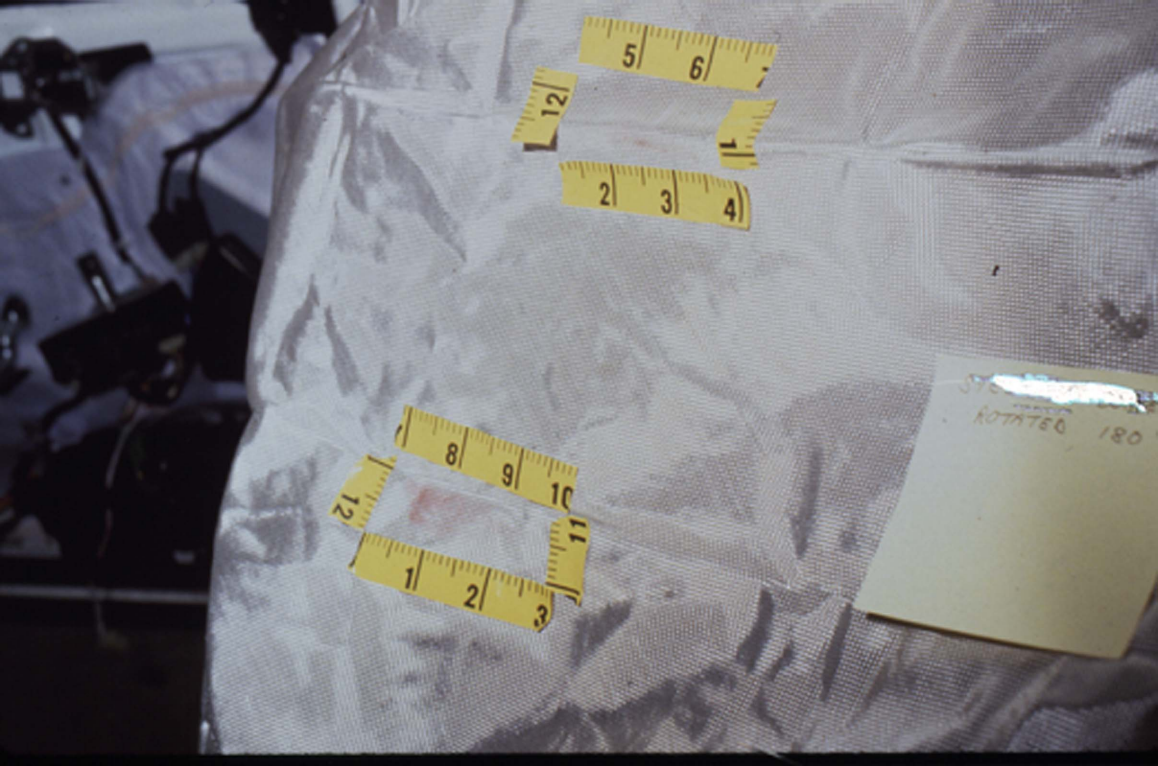




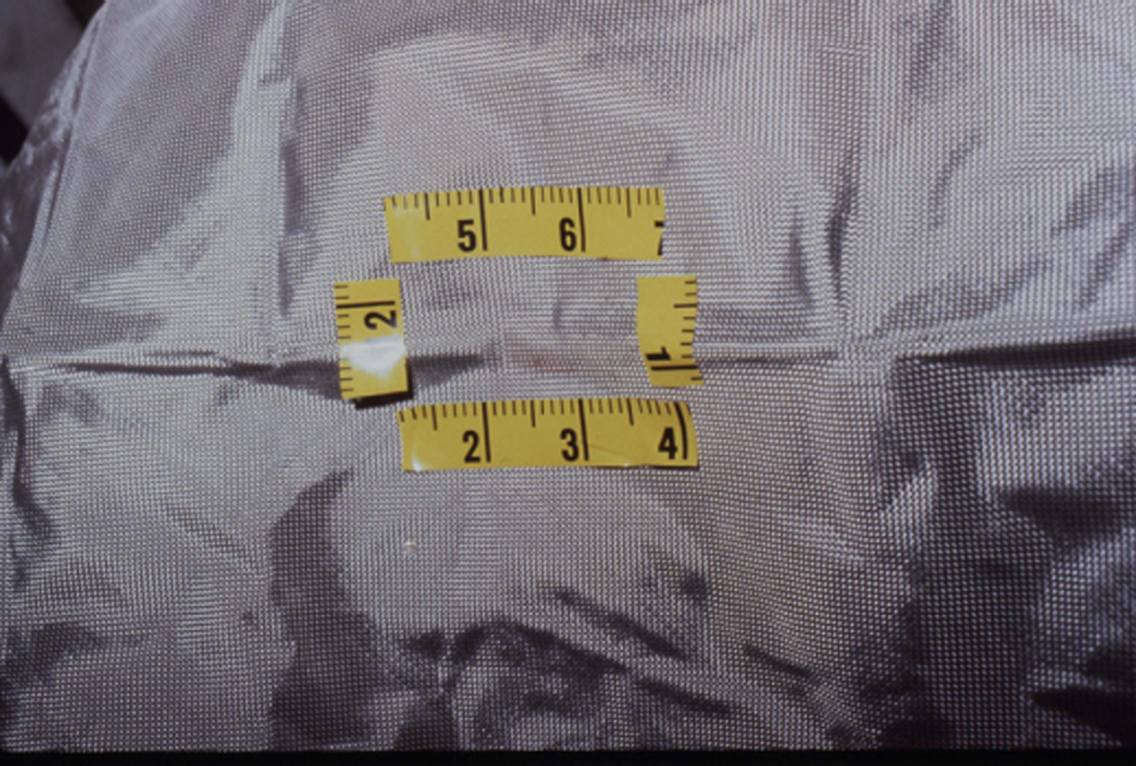
















APPENDIX A

Police Accident Report

OHIO TRAFFIC CRASH REPORT

Rev. 1-82)

BEST AVAILABLE COPY

LOCAL REPORT NO.		<input checked="" type="checkbox"/> OH-2 <input type="checkbox"/> OH-3		REPORTING AGENCY		N.C.I.C.		ODHS USE ONLY - DO NOT MARK ABOVE										LOCAL FILE NO.		
REPORT TAKEN <input type="checkbox"/> AT STATION <input checked="" type="checkbox"/> AT SCENE		NO. OF VEH. PEDESTRIANS INVOLVED 2		CRASH SEVERITY (CHECK MOST SEVERE) <input type="checkbox"/> FATAL <input checked="" type="checkbox"/> INJURY <input type="checkbox"/> PROPERTY DAMAGE ONLY				COMBINED VEH/PROP LOSS <input checked="" type="checkbox"/> OVER \$150 <input type="checkbox"/> UNDER \$150		HIT SKIP <input type="checkbox"/> SOLVED <input type="checkbox"/> UNSOLVED										
IN COUNTY OF				IN <input type="checkbox"/> CITY <input type="checkbox"/> VILLAGE <input checked="" type="checkbox"/> TWP OF				DATE OF CRASH: DAY				TIME: MILITARY								
CRASH OCCURRED ON SR				WITHIN THE INTERSECTION OF																
IF NOT IN INTERSECTION				(LIST NEAREST INTERSECTING STREET, MILEPOST, HOUSE NO.)				CITY CODE												
3/10 MILES: FEET				W N E S OF																
LOG-1		LOG-2		LOC		JUR		FHE		FLT		DESC								
A UNIT NO. 1		NO. OF OCCUPANTS 1		OPERATING <input checked="" type="checkbox"/> PARKED <input type="checkbox"/> DRIVERLESS <input type="checkbox"/> HIT & RUN <input type="checkbox"/> NON-CONTACT <input type="checkbox"/>		INSURANCE CO. OR AGENT														
DRIVER-PEDESTRIAN NAME (LAST, FIRST, MI)				ADDRESS (NO., STREET, CITY, STATE, ZIP CODE)																
PHONE NO.		BIRTH DATE		AGE		SEX		SOCIAL SECURITY NO.		STATE		DRIVER'S LICENSE NO.		OCCUPATION						
														HOUSEHOLD						
OWNER (IF SAME AS DRIVER, WRITE SAME)				ADDRESS												PHONE				
VEH YR 88		MAKE ACURA		MODEL LEGEND		COLOR WHITE		STYLE 2DR		STATE OH		LICENSE PLATE NO.		TOWING SERVICE		VEH/PED DIR FROM N TO S				
CIRCLE DAMAGE AREAS		9 TOP		10 UNDERCAR		11 LOAD		12 TRAILER		DAMAGE SEVERITY <input type="checkbox"/> NON-FUNCTIONAL <input type="checkbox"/> FUNCTIONAL <input checked="" type="checkbox"/> DISABLING		DAMAGE SCALE <input type="checkbox"/> NONE <input type="checkbox"/> MODERATE <input type="checkbox"/> LIGHT <input checked="" type="checkbox"/> HEAVY		VEHICLE DISPOSITION <input type="checkbox"/> DRIVEN AWAY <input type="checkbox"/> REMAINED AT SCENE <input checked="" type="checkbox"/> TOWED		FIRE <input checked="" type="checkbox"/> NO FIRE <input type="checkbox"/> FIRE DUE TO CRASH <input type="checkbox"/> OTHER FIRE				
B UNIT NO. 2		NO. OF OCCUPANTS 2		OPERATING <input checked="" type="checkbox"/> PARKED <input type="checkbox"/> DRIVERLESS <input type="checkbox"/> HIT & RUN <input type="checkbox"/> NON-CONTACT <input type="checkbox"/>		INSURANCE CO. OR AGENT														
DRIVER/PEDESTRIAN NAME (LAST, FIRST, MI)				ADDRESS (NO., STREET, CITY, STATE, ZIP CODE)																
PHONE NO.		BIRTH DATE		AGE		SEX		SOCIAL SECURITY NO.		STATE		DRIVER'S LICENSE NO.		OCCUPATION						
														RETIRED						
OWNER (IF SAME AS DRIVER, WRITE SAME)				ADDRESS												PHONE				
VEH YR 85		MAKE CADILLAC		MODEL FLEETWOOD		COLOR BLUE		STYLE 2DR		STATE OH		LICENSE PLATE NO.		TOWING SERVICE		VEH/PED DIR FROM W TO E				
CIRCLE DAMAGE AREAS		9 TOP		10 UNDERCAR		11 LOAD		12 TRAILER		DAMAGE SEVERITY <input type="checkbox"/> NON-FUNCTIONAL <input checked="" type="checkbox"/> FUNCTIONAL <input type="checkbox"/> DISABLING		DAMAGE SCALE <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> LIGHT <input type="checkbox"/> HEAVY		VEHICLE DISPOSITION <input type="checkbox"/> DRIVEN AWAY <input type="checkbox"/> REMAINED AT SCENE <input checked="" type="checkbox"/> TOWED		FIRE <input checked="" type="checkbox"/> NO FIRE <input type="checkbox"/> FIRE DUE TO CRASH <input type="checkbox"/> OTHER FIRE				
C FROM UNIT NO. 2		NAME (LAST, FIRST, MI)		BIRTH DATE		AGE		SEX		POSITION		INJURIES								
D FROM UNIT NO.		NAME (LAST, FIRST, MI)		BIRTH DATE		AGE		SEX		P-PEDESTRIAN		RESTRAINTS								
E FROM UNIT NO.		NAME (LAST, FIRST, MI)		BIRTH DATE		AGE		SEX		EJECTION		DRUGS								
F FROM UNIT NO.		NAME (LAST, FIRST, MI)		BIRTH DATE		AGE		SEX		ALCOHOL										
A B C		INJURED TAKEN TO		BY		A B C D E F		ALCOHOL												
D E F		REFUSED TREATMENT		BY		A B C D E F		ALCOHOL												
A B C		INJURED TAKEN TO		BY		A B C D E F		ALCOHOL												
D E F		HOSPITAL		BY		A B C D E F		ALCOHOL												
A		OFFENSE CHARGED AND DESCRIPTION		A B C D E F		ALCOHOL														
B		OFFENSE CHARGED AND DESCRIPTION		A B C D E F		ALCOHOL														
RECEIVED CALL 0943		DISPATCHED 0943		ARRIVED 0950		CLEARED 1021		OTHER TIME 40		TOTAL MINUTES 21										
DATE REPORT FILED		PHOTOS		OFFICER'S NAME		BADGE NO.		CHECKED BY												

ORT NO.

DESCRIBE WHAT HAPPENED
REFER TO UNITS
BY NUMBER

UNIT # 1 SOUTH ON [REDACTED] UNIT # 2 EAST ON

323 BOTH DRIVERS STATED THEY ENTERED THE INTER-
SECTION ON A GREEN LIGHT. #1 HIT #2

WEATHER

1 NO ADVERSE WEATHER
4 FOG
5 HIGH WIND
6 OTHER

ROAD CONDITIONS

1 DRY
4 ICE
5 DIRT/SAND
6 OTHER

LIGHT

1 DAYLIGHT
4 DARK NO LIGHTS
5 DARK-LIGHTED
6 OTHER

ROAD CONTOUR

1 STRAIGHT LEVEL
3 CURVE LEVEL
4 STRAIGHT GRADE
5 CURVE GRADE

OCCURRENCE

1 ON ROADWAY
3 OFF RIGHT SIDE
4 OFF LEFT SIDE
5 ON OPPOSING LANE
6 OF A DIVIDED HIGHWAY

SPECIAL AREA

1 ROAD CONSTRUCTION
2 MAINTENANCE AREA
3 SCHOOL ZONE

FIRST HARMFUL EVENT

1 TWO MV IN TRANSPORT

1 HEAD ON
2 REAR-END
3 BACKING
4 SIDESWIPE MEETING
5 SIDESWIPE PASSING
6 ANGLE

ONE MV IN TRANSPORT

1 (COLLISION)

7 PARKED MOTOR VEH
8 PEDESTRIAN
9 ANIMAL
10 TRAIN
11 PEDALCYCLE
12 OTHER NON-M V
13 FIXED OBJECT
14 OTHER OBJECT

(NON-COLLISION)

15 FALL FROM OR IN VEH
16 OVERTURNING
17 OTHER NON-COLLISION

LOCATION

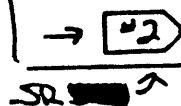
1 INTERSECTION
2 INTERSECTION-RELATED
3 DRIVEWAY ACCESS
4 RAILROAD CROSSING
5 BRIDGE-PASSING OVER
6 BRIDGE-PASSING UNDER
7 NON-INTERSECTION
8 PRIVATE PROPERTY

RAMP LETTER CODE

SHOW NORTH WITH ARROW



TRAFFIC SIGNALS



TYPE OF UNIT

1 CAR
2 SUB-COMPACT
3 COMPACT
4 MID SIZE
5 FULL SIZE

TRUCK

6 PICKUP
7 PANEL/VAN
8 STRAIGHT TRUCK
9 STRAIGHT TRUCK AND TRAILER
10 TRUCK TRACTOR
11 TRACTOR & SEMI-TRAILER
12 TRACTOR & DOUBLE TRAILER
13 MC UP TO 3500C
14 MC 3510C TO 7500C
15 MC OVER 7510C
16 MOTORIZED BICYCLE

17 SCHOOL
18 CHURCH
19 PUBLIC BUS

EMERGENCY

20 POLICE VEHICLE
21 FIRE TRUCK
22 AMBULANCE/RESCUE

OTHER

23 TAXI
24 MOTOR HOME
25 TRAIN
26 FARM VEHICLE
27 FARM EQUIPMENT
28 SNOWMOBILE
29 CONSTRUCTION EQUIP
30 ANIMAL W/RIDER
31 ANIMAL W/BUGGY
32 BICYCLE
33 ALL OTHERS

P - PEDESTRIAN

PRE-CRASH ACTIONS

DRIVER ACTIONS

1 GOING STRAIGHT
2 TURNING RIGHT
3 TURNING LEFT
4 TURNING ON RED LIGHT
5 U TURN
6 STOPPED TO TURN
7 STOPPED IN TRAFFIC
8 PARKING/UNPARKING
9 PARKED
10 BACKING
11 PASSING
12 CHANGING LANES
13 MERGING/EXITING RAMP
14 OUT OF CONTROL
15 SWERVING
16 DRIVERLESS VEH
17 OTHER DRV ACTIONS

TRAFFIC CONTROL

1 NO CONTROLS
2 STOP SIGN
3 YIELD SIGN
4 TRAFFIC SIGNAL
5 TRAFFIC FLASHERS
6 SCHOOL ZONE
7 RAILROAD CROSSBUCKS
8 RAILROAD FLASHERS
9 RAILROAD GATES
10 CONSTR BARRICADES
11 POLICE OFFICER
12 PAVEMENT MARKINGS
13 OTHER

PEDESTRIAN

14 NO CONTROLS
15 CROSSWALK LINES
16 WALK/DON'T WALK DEVICE

PEDESTRIAN ACTIONS

18 CROSSING IN X-WALK
19 CROSSING OTHER THAN X-WALK
20 WALKING IN ROAD (WITH TRAFFIC)
21 WALKING IN ROAD (AGAINST TRAFFIC)
22 PLAYING IN ROAD
23 WORKING ON ROAD
24 ENTERING OR LEAVING VEHICLE
25 PUSHING/WORKING ON VEH IN ROAD
26 OTHER IN ROAD
27 ON SIDEWALK OR SHOULDER

FIXED OBJECT STRUCK

1 NONE
2 UTILITY POLE
3 TRAFFIC SIGN
4 BRIDGE/CULVERT
5 GUARD RAIL
6 FENCE
7 TREE
8 SHRUBBERY
9 CURB
10 DITCH
11 EMBANKMENT
12 BUILDING
13 MAIL BOX
14 CONSTRUCTION BARRICADE
15 FIRE HYDRANT
16 OTHER OBJECT

CONTRIBUTING FACTOR

DRIVER ERROR

1 NONE
2 FAILURE TO YIELD
3 UNSAFE SPEED
4 FOLLOWING TOO CLOSELY OR ACDA
5 RAN RED LIGHT
6 RAN STOP OR YIELD SIGN
7 IMPROPER TURN
8 IMPROPER PASSING
9 IMPROPER LANE CHANGE
10 IMPROPER BACKING
11 IMPROPER START FROM PARKED POSITION
12 STOPPED OR PARKED ILLEGALLY
13 LEFT OF CENTER
14 FAILURE TO CONTROL
15 DRIVER INATTENTION
16 DROVE OFF ROAD
17 REASON UNKNOWN
18 OTHER DRIVER ERROR

NON-DRIVER FACTOR

18 VEHICLE DEFECTS
19 LOAD SHIFTING
20 FALLING, SPILLING
21 PAVEMENT DEFECT
22 SHOULDER DEFECT
23 DEBRIS ON ROAD
24 DOWNED TRAFFIC SIGN/DEVICE
25 VISION OBSTRUCTION
26 ANIMAL ACTIONS
27 PEDESTRIAN ACTIONS

VEHICLE DEFECTS
CODE IF CONTRIBUTING FACTOR IS 18

PRIMARY

SECONDARY

1 TURN SIGNALS
2 HEAD LAMPS
3 TAIL LAMPS
4 BRAKES
5 STEERING
6 TIRE BLOWOUT
7 WORN OR SLICK TIRES
8 TRAILER EQUIPMENT DEFECTIVE
9 MOTOR TROUBLE
10 DISABLED FROM PRIOR ACCIDENT
11 OTHER DEFECTS

TRUCK LOAD

1 EMPTY
2 PERISHABLE GOODS
3 GENERAL FREIGHT
4 METAL/HEAVY MACHINERY
5 HAZARDOUS GAS
6 HAZARDOUS LIQUID
7 HAZARDOUS SOLID
8 RADIOACTIVE MATERIAL

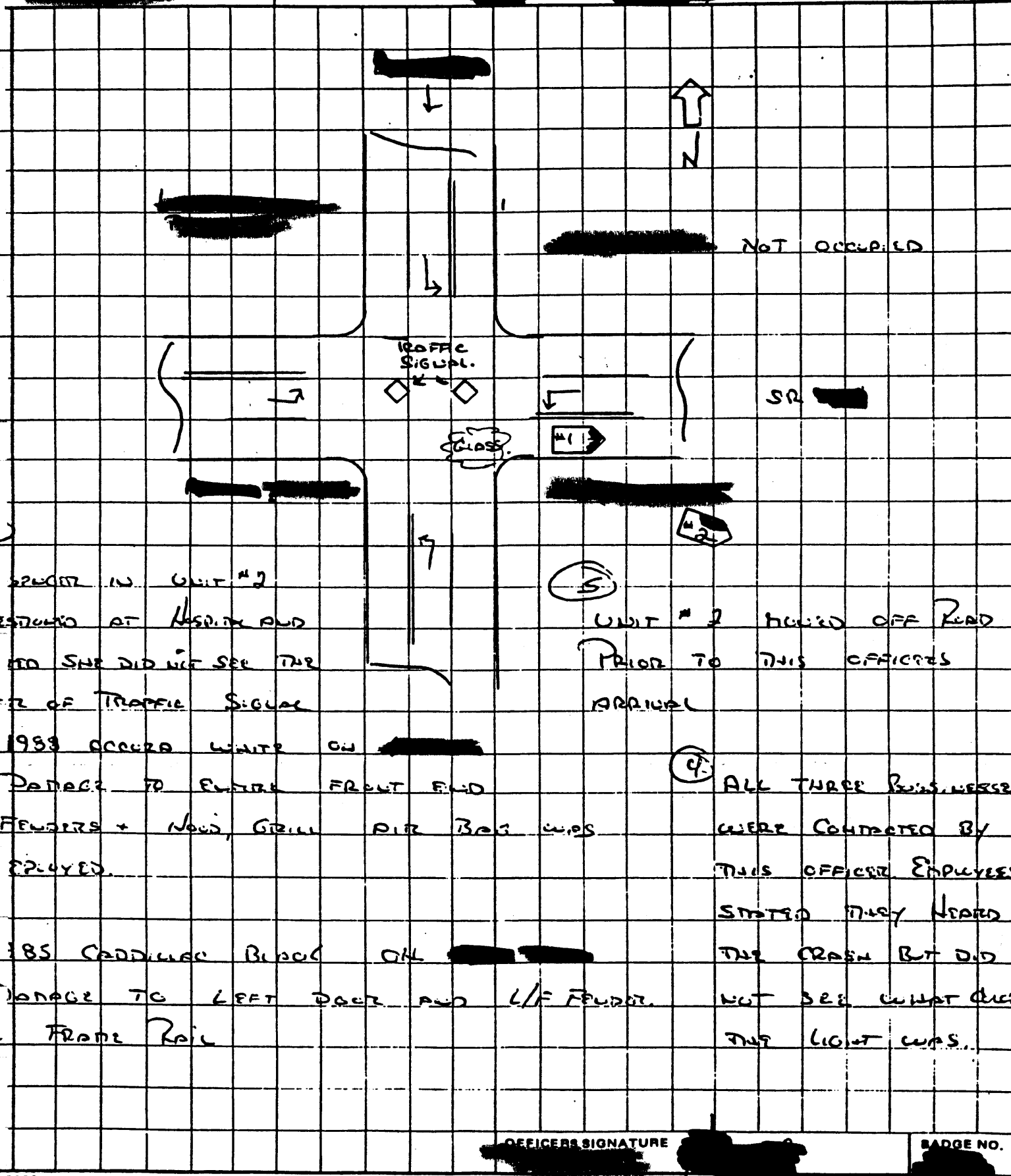
TRUCK AXLES

1 TRACTOR-TRAILER RIGS

PLEASE CHECK TO SEE THAT ALL BOXES ARE CLEAR ENOUGH TO BE MICROFILMED.

1 NO HELMET
2 FULL COVERAGE
3 FULL FACIAL COVER
4 OTHER TYPE HELMET

REPORTING AGENCY STATE Highway Patrol	DATE OF CRASH 1/2/83
CRASH LOCATION SR [redacted]	



1. REPORTER IN UNIT #2
2. POSITIONED AT INTERSECTION AND
3. STATED SHE DID NOT SEE THE
4. LIGHT OF TRAFFIC SIGNAL

5. UNIT #2 HUNG OFF ROAD
PRIOR TO THIS OFFICER'S
ARRIVAL

6. DAMAGE TO ENTIRE FRONT END
7. FENDERS + NOSE, GRILL AIR BAG WIPS
8. DEPLOYED
9. 1985 CADILLAC BLACK ON [redacted]
10. DAMAGE TO LEFT DOOR AND L/F FENDER
11. + FRAME RAIL

12. ALL THREE BUSINESSMEN
13. WERE CONTACTED BY
14. THIS OFFICER EMPLOYEES
15. STATED THEY HEARD
16. THE CRASH BUT DID
17. NOT SEE WHAT CAUSED
18. THE LIGHT WIPS.

OFFICER'S SIGNATURE [redacted]	BADGE NO. [redacted]
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TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

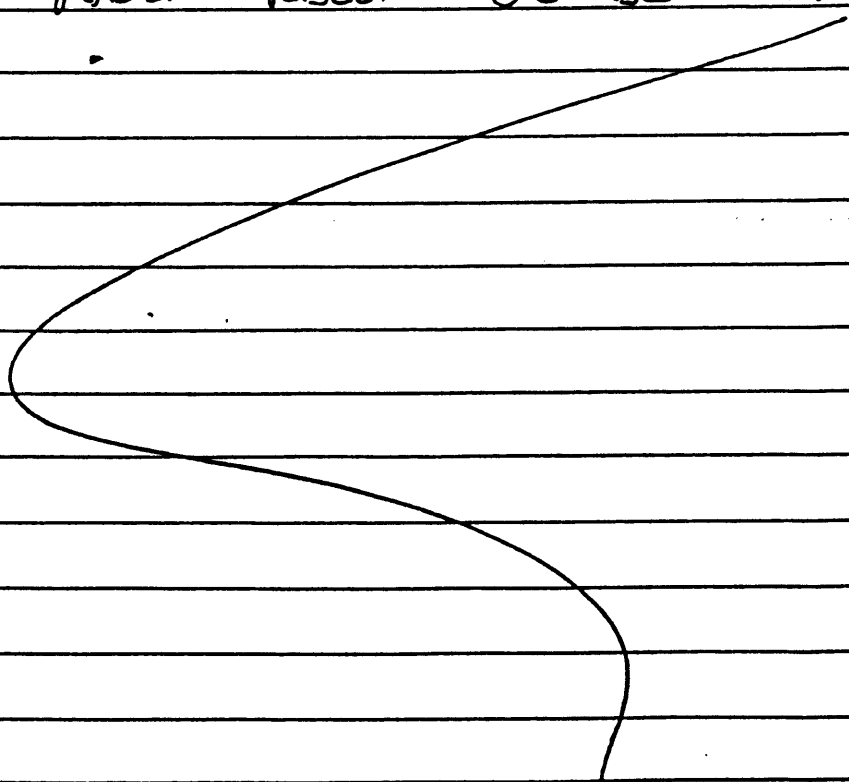
AL ORT MBER	REPORTING AGENCY	DATE OF CRASH 1/29/
-------------------	---------------------	------------------------

FOR LOCAL USE ONLY — DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, [REDACTED] (PRINTED) [REDACTED] HEREBY MAKE THIS VOLUNTARY STATEMENT TO
[REDACTED] (OFFICERS NAME) AT [REDACTED] Hospitals (LOCATION)

I WAS GOING EAST ON SR [REDACTED] (2)
 APPROACHING THE TRAFFIC LIGHT AT [REDACTED]
 THE TRAFFIC LIGHT WAS GREEN. THE NEXT
 TIME I SAW IT. I DID NOT SEE ANY
 TRAFFIC IN THE INTERSECTION. AS I ENTERED
 THE INTERSECTION I GOT HIT FROM THE SIDE
 BY A CAR GOING SOUTH ON [REDACTED]

Ques. How FAST WERE YOU GOING
 Ans. ABOUT 25-30 MPH.



ADDRESS OF WITNESS	PHONE
SIGNATURE OF WITNESS	OFFICERS SIGNATURE

TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

REPORT NUMBER	REPORTING AGENCY	DATE OF CRASH
		M 1/9/

FOR LOCAL USE ONLY — DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, [REDACTED] (PRINTED) HEREBY MAKE THIS VOLUNTARY STATEMENT TO
[REDACTED] (OFFICERS NAME) AT [REDACTED] (LOCATION)

I WAS GOING SOUTH ON [REDACTED] APPROACHING
SR 3. THERE WAS A CAR AHEAD OF ME
AND IT WENT THROUGH THE GREEN LIGHT
AND I WENT INTO THE INTERSECTION AFTER
IT. I SAW A CAR GOING EAST ON
SR 3 GO THROUGH THE RED LIGHT AND
I HAD NO CHANCE TO GO AND HIT IT
BROADSIDE.

Ques. WAS THE LIGHT GREEN THE WHOLE TIME
. . . YOU SAW IT
Ans. YES.

Ques. HOW FAST WERE YOU GOING ABOUT ~~20-25 MPH~~
Ans. ABOUT 20-25 MPH.

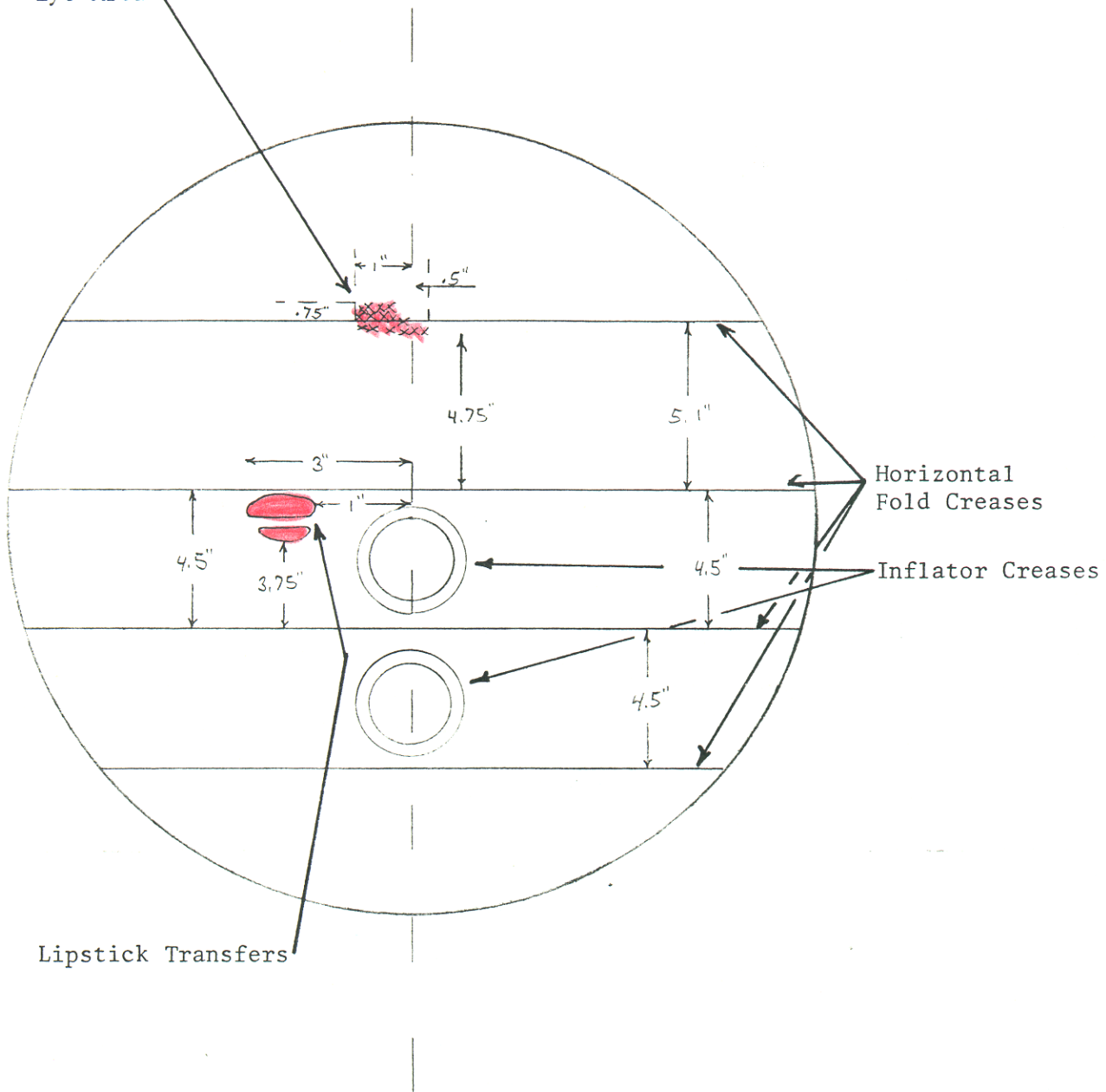
Ques. DID YOU SEE THE LIGHT AFTER THE CRASH
Ans. YES IT WAS STILL GREEN FOR NORTH
SOUTH TRAFFIC.

ADDRESS	PHONE
SIGNATURE OF WITNESS	OFFICER'S SIGNATURE
<u>[REDACTED]</u>	<u>[REDACTED]</u>

APPENDIX B

Air Bag Contact Schematic

Makeup Transfers, Possible
Eye Area



APPENDIX C

Auto Body Repair Estimate

Damage Report

91

Page 1

AUTO BODY

STREET.

SPECIALIZING IN IMPORT BODY REPAIR

Vehicle Owner:

Vehicle:

Insurance:

88 ACURA
LEGEND

62 AS

Work:

Mileage:

Home:

Vehicle ID Number

Date of Loss:

JH4KA4667JC

--- DAMAGE REPORT Written By ---
Item

		-----Labor-----			
		Price	Metl	Mech	Othr Paint
C 1.	Remove & Replace FRONT BUMPER COVER	\$ 217.26	2.3		2.4
C 2.	Remove & Replace FRONT BUMPER LIC. PLATE FRAME & BRACKET	\$ 18.18			
C 3.	Remove & Replace RIGHT FRONT FOG LAMP COVER	\$ 21.39	0.2		0.2
C 4.	Remove & Replace FRONT BUMPER IMPACT ABORS	\$ 54.98			
C 5.	Remove & Replace FRONT BUMPER REINFORCEMENT BAR	\$ 172.27			
C 6.	Remove & Replace FRONT BUMPER LEFT & RIGHT STAY	\$ 43.52			
C 7.	Remove & Replace FRONT BUMPER LEFT & RIGHT BUMPER CAP	\$ 6.74			
C 8.	Remove & Replace FRONT BUMPER LEFT & RIGHT SLIDE BRACKET	\$ 21.44			
C 9.	Remove & Replace FRONT BUMPER AIR SPOILER	\$ 43.77			
C 10.	Remove & Replace GRILLE	\$ 74.59	0.5		
C 11.	Remove & Replace GRILLE EMBLEM	\$ 11.50	0.2		
C 12.	Remove & Replace GRILLE MOULDING	\$ 46.58	0.2		
C 13.	Remove & Replace AC AMBRENT SENSOR	\$ 23.22	0.3		
C 14.	Ain Head Lights			0.4	
C 15.	Remove & Replace RIGHT H/L ASSY.	\$ 190.00	0.2		
C 16.	Remove & Replace LEFT H/L ASSY.	\$ 190.00	0.2		
C 17.	Remove & Replace RIGHT SIGNAL LAMP LENS	\$ 10.90			
C 18.	Remove & Replace LEFT SIGNAL LAMP LENS	\$ 10.90			
C 19.	Remove & Replace RIGHT PARK SIDE MARKER ASSY.	\$ 66.40	0.3		
C 20.	Remove & Replace LEFT PARK SIDE MARKER ASSY.	\$ 66.40	0.3		
C 21.	Remove & Replace RADIATOR	\$ 511.65	1.7		
C 22.	Remove & Replace COOLANT	\$ 18.00			
C 23.	Remove & Replace FAN SHROUD	\$ 61.73	1.3		
C 24.	Remove & Replace FAN BLADE	\$ 24.42			
C 25.	Remove & Replace FAN MOTOR	\$ 156.29			
C 26.	Remove & Replace WASHER BOTTLE ASSY.	\$ 95.10	0.8		
C 27.	Remove & Replace AIR CLEANER AIR FLOW TUBE	\$ 67.40	0.3		
C 28.	Remove & Replace A/C CONDENSER	\$ 346.59		0.9	
C 29.	Remove & Replace A/C RECHARGE & FREON	\$ 24.00		1.4	
C 30.	Remove & Replace A/C RECEIVER DRIER	\$ 82.02		0.7	
C 31.	Remove & Replace A/C COOLING FAN	\$ 21.71		0.8	
C 32.	Remove & Replace A/C COOLING FAN MOTOR	\$ 159.30			
C 33.	Remove & Replace A/C FAN SHROUD	\$ 53.48			
C 34.	Remove & Replace HOOD	\$ 279.74	1.5		4.5
C 35.	Remove & Replace HOOD HINGES LT. & RT.	\$ 38.52	0.4		0.4
C 36.	Remove & Replace HOOD LATCH	\$ 17.58	0.3		

--- continued ---
28

Damage Report

Page

DAMAGE REPORT Written By		Labor			
Item	Price	Metl	Mech	Othr	Paint
C 37. Remove & Replace SAFETY HOOD LATCH	\$ 17.12				
C 38. Remove & Replace RIGHT HOOD PROP ROD STOCK	\$ 52.50	0.2			
C 39. Remove & Replace HOOD INSULATOR RETAINERS	\$ 30.60				
C 40. Remove & Replace HOOD INFO. LABELS	\$ 16.00	0.6			
C 41. Remove & Replace RIGHT FENDER	\$ 207.00	2.3			2.6
C 42. Remove & Replace RIGHT FENDER SIDE MOULDING	\$ 19.26				
C 43. Remove & Replace RIGHT FRONT FENDER CHROME MOULDING	\$ 16.43				
C 44. Remove & Replace RIGHT REAR FENDER CHROME MOULDING	\$ 16.43				
C 45. Remove & Replace RIGHT FENDER W/O MOULDING	\$ 23.46				
C 46. Stripe RIGHT FENDER	\$ 10.00				0.5
C 47. Repair & Straighten RIGHT APRON		5.5			1.1
C 48. Remove & Replace MOULDING CLIPS	\$ 20.00				
C 49. Remove & Replace LEFT FENDER	\$ 207.00	2.3			2.6
C 50. Remove & Replace LEFT REAR FENDER MOULDING CHROME	\$ 16.43				
C 51. Remove & Replace LEFT FENDER W/O MOULDING	\$ 23.46				
C 52. Remove & Replace LEFT FENDER PIN STRIPE	\$ 10.00	0.5			
C 53. Repair & Straighten LEFT APRON		6.5			1.1
C 54. Repair & Straighten LT. & RT. FRAME RAILS		6.0			2.0
C 55. Remove & Replace RADIATOR SUPPORT	\$ 193.66	6.0			1.5
C 56. Repair & Straighten LEFT DOOR		1.0			1.8
C 57. Remove & Replace LEFT DOOR PIN STRIPE	\$ 10.00	0.5			
C 58. Remove & Replace REAR BUMPER COVER	\$ 217.26	1.8			2.7
C 59. Remove & Replace GLASS CLEAN UP		1.0			
C 60. Refinishing Requires BLEND ADJ. PANELS					1.5
C 61. Sublet Repairs ALIGN FRONT SUSPENSION	\$ 45.00				
C 62. Remove & Replace AIR BAG	\$ 623.04				
C 63. Sublet Repairs INSTALLMENT OF AIR BAG	\$ 361.00				
C 64. Remove & Replace AIR BAG SENSORS	\$ 439.98				
C 65. Sublet Repairs INSTALLMENT OF AIR BAG SENSOR	\$ 76.00				
C 66. Remove & Replace ENGINE & SENSOR & ELECTRICAL					
C 67. Sublet Repairs DEALER CHECK DIAGNOSTIC EQUIPMENT	\$ 50.00				
C 68. Sublet Repairs REGLAZE	\$ 105.00				
C 69. Bench Mount				4.0	
C 70. Structurally Align UNIBODY				8.0	
C 71. ADD'L PAINT LABOR CLEAR COAT PAINT					7.3
C 72. Paint Material Supplies	\$ 380.40				
C 73. Extra Material Charge for RUSTPROOFING	\$ 66.00				
C 74. Extra Material Charge for FLEX	\$ 15.00				
C 75. hazardous waste removal	\$ 10.00				
C 76. Towing Charges	\$ 90.00				

-- continued --

Damage Report

Page

--- DAMAGE REPORT Written By ---

===== DAMAGE REPORT SUMMARY =====

MECHANICAL LABOR \$	126.00	....	4.2 hours @ \$	30.00 per hour
METAL LABOR \$	1,175.20	....	45.2 hours @ \$	26.00 per hour
STRUCTURAL LABOR \$	360.00	....	12.0 hours @ \$	30.00 per hour
PAINT LABOR \$	837.20	....	32.2 hours @ \$	26.00 per hour
PARTS \$	5,427.20			
PAINT MATERIALS \$	461.40	✓		
TOWING \$	90.00	✓		
SUBLET \$	637.00			
SALES TAX \$	451.20			

DAMAGE REPORT TOTAL \$ 9,565.20

=====

Insurance Payable Repair Total	\$	0.00
Customer Payable, including Deductible	\$	9,565.20

9565.20
9368.64

196.56

Repair Order

Page 1

Damage Report

AUTO BODY

SPECIALIZING IN IMPORT BODY REPAIR

Vehicle Owner:

Vehicle:

Insurance:

88 ACURA
LEGEND62 AS
Mileage: 25190
Vehicle ID Number
JH4KA4667JC(800) 0
Policy:
Claim No:Work:
Home:
Date of Loss:

SUPPLEMENT BILL Written By

Inspected By

Estimated

Actual

Diff

App'd

Remove & Replace	FRONT	BUMPER LIC. PLATE FRAME & BRA	\$	18.18	\$	24.82	\$	6.64	Yes
Remove & Replace	FRONT	BUMPER REINFORCEMENT BAR	\$	172.27	\$	244.05	\$	71.78	Yes
Remove & Replace		HOOD LATCH	\$	17.58	\$	58.81	\$	41.23	Yes
Remove & Replace	RIGHT	FENDER W/O MOULDING	\$	23.46	\$	32.44	\$	8.98	Yes
Remove & Replace	LEFT REAR	FENDER MOULDING CHROME	\$	16.43	\$	23.35	\$	6.92	Yes
Remove & Replace	LEFT	FENDER W/O MOULDING	\$	23.46	\$	32.44	\$	8.98	Yes
Remove & Replace		UPPER AIR CONDITIONING LINE 3	\$	—	\$	36.67	\$	36.67	Yes
dd'l MECHANICAL LABOR	0.7 Hrs								Yes
Remove & Replace		LOWER AIR CONDITIONING LINE	\$	—	\$	106.44	\$	106.44	Yes
dd'l MECHANICAL LABOR	0.7 Hrs								Yes
Remove & Replace		LOWER RADIATOR HOSE	\$	—	\$	11.37	\$	11.37	Yes
dd'l METAL LABOR	0.7 Hrs								Yes
Remove & Replace	FRONT	MOTOR MOUNT	\$	—	\$	70.97	\$	70.97	Yes
dd'l METAL LABOR	0.8 Hrs								Yes
Remove & Replace	LEFT	AIR TUBE INTAKE	\$	—	\$	13.89	\$	13.89	Yes
dd'l METAL LABOR	0.6 Hrs								Yes
Remove & Replace	RIGHT	HOOD LATCH PLATE	\$	—	\$	18.03	\$	18.03	Yes
Remove & Replace	RIGHT	LAMP TURNING ASSY.	\$	—	\$	42.65	\$	42.65	Yes
Remove & Replace	RIGHT	INNER FENDER SKIRT	\$	—	\$	36.07	\$	36.07	Yes
dd'l METAL LABOR	0.5 Hrs								Yes

— continued —

Repair Order

Page 2

SUPPLEMENT BILL Written By [REDACTED] Inspected By [REDACTED]				Estimated	Actual	Diff	App'd
Remove & Replace 1 1/2 METAL LABOR	LEFT	INNER FENDER SKIRT	0.5 Hrs	\$ -	\$ 36.07	\$ 36.07	Yes Yes
Remove & Replace 1 1/2 METAL LABOR	RIGHT	RADIATOR SEAL	0.2 Hrs	\$ -	\$ 11.33	\$ 11.33	Yes Yes
Remove & Replace 1 1/2 METAL LABOR	LEFT	RADIATOR SEAL	0.2 Hrs	\$ -	\$ 11.33	\$ 11.33	Yes Yes

===== SUPPLEMENT BILL SUMMARY =====

Approved by Insurance Company

Additional Parts		\$ 394.82
Parts Price Increase		\$ 144.53
Additional MECHANICAL LABOR	1.4 hr(s) @ \$ 28.00/hr	\$ 39.20
Additional METAL LABOR	3.5 hr(s) @ \$ 24.00/hr	\$ 84.00
Sales Tax		\$ 33.13

TOTAL APPROVED SUPPLEMENT.....\$ 695.68